



GREENLAND MINERALS IS ON TOP OF THE WORLD AT KVANEFJELD

It's an enviable position to be in to own the world's largest JORC or NI 43-101 resource of rare earths when the world is caught short. It is remarkably so when the geology clearly shows the potential to increase that figure by multiples.

This is the position that ASX-listed Greenland Minerals & Energy Ltd (GMEL) (ASX: GGG) finds itself in as it continues to uncover what is turning out to be a sea of rare earths at its Kvanefjeld Project in southern Greenland.

GMEL has just completed more than 14,000m of diamond drilling at the newly discovered zone 2 and zone 3 in the Kvanefjeld area and one could reasonably expect the resource to grow substantially once it is recalculated later this year. The focus of the company has been to find ore grade material closer to the proposed infrastructure footprint and it appears that it has had no small amount of success in achieving this with early indications that zone 2 is bigger and higher grade

"This project already makes commercial sense, however beneficiation will be the key to truly unlocking the value, and once achieved, will propel the project to the top of the 'to be developed' list. It is my firm belief that the Kvanefjeld ores can, and will be, successfully beneficiated."

Roderick McIlree
GREENLAND MINERALS & ENERGY, MANAGING DIRECTOR



than Kvanefjeld, which is already a giant containing 6.6 million tonnes (Mt) total rare earth oxides (TREO), 350 Mlbs U3O8, and 3 Blbs Zn and zone 3 showing all the hallmarks of a higher grade orebody again. Remarkably however, and this is the rub, less than 15% of the mineralised complex has been drill tested.

GMEL, which continued throughout 2011 to announce good news in regards to politics, drill results, feasibility developments and beneficiation success, recently completed an agreement that will see it move to 100% control of the giant project. In mid-August the company announced it had finalised an agreement with Westrip Holdings and Rimbal Pty Ltd (the project joint venture partners), to acquire the outstanding 39% of the exploration license (EL 2010/02) over the northern Ilimaussaq Complex in Greenland that contains the Kvanefjeld, and zone 2 and 3 multi-element deposits.

That agreement clears the way for GMEL to accelerate its exploration and pre-development activities in Greenland and given its track record for success, that's probably what it will do.

GMEL Managing Director, Roderick McIlree, stated in that same release "Securing 100% ownership of the Kvanefjeld Project is an important step and comes at a time when the Company is making major technical advances in process development that will strengthen Kvanefjeld's great potential, and the environment and social impact

assessments are progressing on schedule in close consultation with Greenlandic stakeholders. In the context of our future development, we believe the time is now right to secure 100% of what is clearly a tier 1 mining asset."

The move to 100% of Kvanefjeld came hot on the heels of news that the Greenland Government had approved the Company's "terms of reference" for Environmental and Social Impact Assessments for the Project to include Uranium, the only company to date to be approved of such a thing in Greenland. These critical components of the definitive feasibility study (DFS) remain on target to be completed in time for GMEL to begin construction in 2013, with first production scheduled for late 2015.

An integral component of the advanced DFS will be the finalisation of process flow sheets and the most cost effective development option for Kvanefjeld. To that end GMEL announced in mid-June that it had achieved significant advances in the areas of mineral beneficiation, rare earth recoveries, and REE and uranium grades in the mine schedule. This is an area that interested parties should keep an eye on. If this project can be successfully beneficiated, then this monster will really come alive.

The Company currently has a small army of in-house metallurgists and engineers focussed on the problem and early

indications, as per recent ASX announcements, are that further breakthroughs in the coming months can be expected.

According to McIlree, GMEL has been working hard on understanding the mineralogical DNA of the Kvanefjeld resources. This is an essential step in any specialty metal project. GMEL's mineralogical programme is headed up using the University of British Columbia, with SGS, Lakefield, CSIRO, ANSTO and others providing consultation. The results of this work allows the company to set the necessary foundations for achieving an effective method of pre concentrating all the economic minerals (REE-U minerals) into a much smaller mass fraction, which has a corresponding positive impact on the overall economics of the project.

Current beneficiation test work has revealed that floatation can effectively concentrate >85% of REEs into <15% of the original mass, with efforts focused on getting the balance right - and if certain members of the technical team are anything to go by - this might be achieved in the not too distant future.

"This step represents a very important short term goal for the Company, and once achieved, will propel the project to the front of the 'to be developed' list. This project makes financial sense on a whole of ore treatment scenario, but will become best in class once we complete the beneficiation. It is my firm belief that the Kvanefjeld ores can, and will be, successfully beneficiated," McIlree said

He said a method to effectively concentrate the economic minerals will allow for significant reductions in the capacity of hydrometallurgical leach circuits, which will ultimately lead to a lower cost, highly efficient mining operation capable of producing multiple products. This is another important point that McIlree likes to make. He reckons the Uranium will pay for the production of everything else, which in the world of Rare Earth production, will be like trying to compete with a copper-molybdenum-gold mine when you only produce molybdenum. It's a competitive advantage that does not seem as yet to have been picked up by the broader market - but if true has BIG implications.

Advances in mineral resources at Kvanefjeld and their geological characteristics has already brought major improvements to the project in terms of resource quality and understanding. The establishment of a method to domain resources represented an important step in characterising the ores by common mineralogical and geochemical features, as well as identifying higher grade zones. 'Inferred' resources that had previously included high-grade material, were infill drilled in 2010 in order to be reclassified as 'indicated'.

"It helps when you're hunting a flat tabular homogenous rock type. This isn't something we anticipate we will have to hit with a chemical sledgehammer to dissolve," McIlree went on to say.

These improvements were incorporated into the latest resource estimate, released in March 2011, which has allowed for a significantly improved mine schedule. Over the first 15 years of mining the new mine schedule would see an increase in output of 21% for TREO's and 10% for U3O8 using just the 'base-case'

GREENLAND MINERALS & ENERGY

DIRECTORS

MICHAEL HUTCHINSON
Chairman

RODERICK MCILLREE
Managing Director

SIMON CATO
Executive Director

JEREMY WHYBROW
Exploration Director

TONY HO
Non-Executive Director

DR. JOHN MAIR
Executive Director

MILES GUY
Company Secretary

REGISTERED OFFICE

Unit 6, 100 Railway Rd
Subiaco WA 6000

T: (618) 9382 2322
F: (618) 9382 2788

WEB:
www.ggg.gl

**AUSTRALIAN
SECURITIES
EXCHANGE (ASX)
CODE:**
GGG

mining parameters.

Whilst this represents a significant increase in mine output, it more importantly confirms an opportunity for GMEL to reduce the mining rate and downstream processing capacity and cost, whilst maintaining a high rare earth output. GMEL is aiming to develop an operation, which at full capacity, will have an annual production of approximately 40,000 tonnes TREO.

Improving recoveries is another key point of focus, particularly for REEs. In the 'base-case' flow sheet only 34% of REEs are recovered. Recent testwork has provided a 17% improvement in the efficiency of REE leaching, resulting in the recovery of 40% of total REEs (as oxides or TREOs). The increase does not take into account advances in leaching conditions, which are likely to lead to further substantial improvements in the recovery of REEs. Work programmes are currently being finalised that should see improved REE recovery with further studies aimed at evaluating a number of leach solution chemistries and leach conditions.

Testwork on high grade mineral concentrates generated from a pilot plant of the floatation circuit are underway - the results of which may be available in the near future.

"Beneficiation is the key for this type of bulk tonnage project. The testwork has provided some very positive results and we are fortunate in having a number of ways to take this forward," McIlree told **The Pick**.

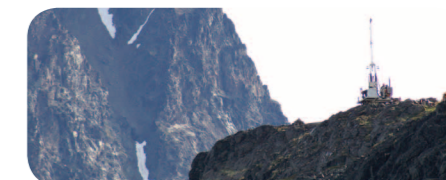
"Over its history Kvanefjeld has been conceived as being a difficult ore body to deal with because it was seen as being unique. Unique doesn't mean difficult, it just means different. We are finding the mineralisation is particularly amenable to treatment."

GMEL is aiming to finalise its flow sheets by the end of the March 2012 quarter.

The Company will also continue to define further resources within the very large area of mineralisation.

"The resource at Kvanefjeld has an 8km by 6km surface area. Not too many companies, when talking about their resource, can speak in measurements in terms of square kilometres," McIlree said.

Previous drilling uncovered geological evidence that suggested that zones 2 and 3 represent outcropping, or near-surface expressions, of a mineralised system that extends over several kilometres from Kvanefjeld, and is interconnected at depth. GMEL is confident that the compilation of initial multi-element resource estimates on zones 2 and 3 will significantly increase the resource base for the overall project.



So how does an unknown Perth company end up with a world class project on the other side of the globe.

GMEL (then known as The Gold Company Ltd) started investigating the resource potential of Greenland in 2005 - and it is a decision that looks set to pay huge dividends for the Company and its shareholders.

"We sat down six years ago and set ourselves the task of looking for a jurisdiction that had potential to host a tier 1 project, and as such we set the bar pretty high regarding selection criteria which included things like political, legal risk and geological prospectivity. We punched in the numbers for various jurisdictions around the world and to our surprise Greenland kept coming up in the top 3 for each one of the hurdles, so we decided then and there that we had better have a closer look," McIlree, told **The Pick**.

It didn't take the Company long to decide that Greenland was definitely a place it wanted to be and it was one of the front runners in a growing focus of international attention on Greenland's potential resource riches - which also includes the hunt for oil.

"There is a very supportive government, with a tremendous database of information on the mineral prospectivity of the country - and the minerals are literally sticking out of the ground. It wasn't hard to see the huge potential there," McIlree said.

In mid-2006 the Company identified Kvanefjeld as something it must own, a decision that became official when it announced that it had an option agreement to acquire up to 100% of the Kvanefjeld Project in early 2007 and a month later it was sinking its first drill bit into Kvanefjeld.

Just over four years later the Company is entering the final stages of developing what is turning out to be a truly world class project.

One for the watchlists!!

